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The Honorable Kristin K. Mayes

Commissioner

AZ CORP COMMISSION Arizona Corporation Composition NT CONTROL

Tubac & New Arsenic Standard (WS-01303A-02-0867, et al)

1200 West Washington Street

Phoenix, Arizona 85007

April 13, 2005

RE:

Operations

From:

Fax:

Phone:

E-Mail:

Arizona Corporation Commission

DOCKETED

Tom Broderick APR 1 3 2005 623-445-2420 623-445-2451

thomas.broderick@

amwater.com

DOCKETED BY

WS-01303A-02-0867 WS-01303A-02-0868 WS-01303A-02-0869

WS-01303A-02-0870 W-01303A-02-0908

W-01303A-01-0983

Dear Commissioner Mayes:

Thank you for your letter of April 11, 2005 which presented concerns and questions regarding Arizona American Water's efforts to comply with the new federal standard for arsenic in our Tubac water district. We recently received two other letters on this topic from the Arizona Department of Environmental Quality ("ADEQ") - an April 4, 2005 letter to Company employee Nina Miller and a March 22, 2005 letter to James Patterson, Tubac resident. These letters are attached for your reference.

As a combined result of these three letters, the Company has halted, perhaps only temporarily, construction of its planned arsenic removal facility in Tubac that was scheduled to start on May 2, 2005. The Company will also be submitting a second written request for an exemption to ADEQ containing all of the information sought by ADEQ in its April 4, 2005. This written request will present compelling economic factors using our estimates for arsenic related rate increases in light of 2000 US Census data on household income and other economic and demographic statistics for Tubac. Additionally, this exemption request will seek guidance from ADEQ concerning compliance for point of use systems. Point of use consideration has been asked for by some Tubac residents.

We will not proceed with construction of the planned facility in Tubac until we receive a timely preliminary decision on our upcoming request from ADEQ. If this project ultimately proceeds to construction as planned, the Company will miss the January 23, 2006 arsenic compliance deadline in the Tubac district by each day this project is on hold past the May 2 start date.

Your letter asks if we have "investigated the feasibility of new emerging technologies." We are required to use only National Science Foundation approved technologies that are Best Available Technologies approved by ADEQ and EPA. Realizing these requirements and the January 2006 deadline, the Company earlier went through an extensive alternatives analysis to select the best and most affordable technology. We would be happy to provide this upon request.

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Unfortunately, at this time the coal ash technology mentioned in your letter meets none of these criteria. For this reason, the Company has not had recent discussions with the Berkeley Laboratories concerning this technology. In regards to whether this can be implemented at a fraction of the cost, please note that coal ash is merely a media to remove arsenic. Under AAW's plan, the annual cost of media in 2006 is \$146,000 or 30% of the total annual revenue requirement of \$480,000. So, even if coal ash were free (which it isn't) it would likely save roughly 30% of the annual total revenue requirement. The reason the savings are not larger is that the vast majority of the costs of the project are for the pressure vessels which contain the media, the associated piping and pumps and the like.

In response to blending, the Company has evaluated that option in Tubac and we will blend some water. Whether or not additional water could be blended focused on Well #3 which has met the new arsenic standard. However, Well #3 cannot meet our maximum demands and thus blending is necessary with Well #4. Unfortunately, Well 4 is 6,000 feet away and a new pipeline costing roughly \$ 700,000 is necessary to connect these two wells. Also, like our current plan, a new storage tank would be necessary to store the blended water. Also, arsenic treatment at Well #4 (albeit less costly than our plan) would still be necessary to stay within the new arsenic standard year around. The sum total of these steps did not prove less costly to our current plan.

As regards well depth testing, AAW views this option as too risky for our customers. AAW received quotes ranging from \$600,000 and \$800,000 per well to seal off perforated areas with depth specific arsenic. Unfortunately, no vendor would guarantee that water tested after sealing would comply with the new arsenic standard.

As regards, aerial surveys, this would not give us more information on underground aquifers to help select sites for drilling new wells. And as for drilling more wells, which is the only way we can determine if arsenic is present, this is too risky for our customers. This could result in a lot of expense and the strong possibility of failure.

The business office and fire flow improvements will not be included in the arsenic cost recovery mechanism. Additional water storage for fire flow has been removed from the project design and thus the project's cost was reduced from earlier estimates. Some additional storage is necessary for blending treated and untreated water and that is included in the project. The net cost of the business office is small and THE COMPANY will not request cost recovery for this until the next rate case. Please note that our current business office in Tubac is a small trailer.

The Company will file its direct testimony in the Commission's Arsenic Cost Recovery Mechanism proceeding on April 15, 2005. In this testimony, the Company will propose a new hook-up fee in Tubac to be treated as a contribution in aid of construction. Hook-up fee revenues will directly reduce the cost of the project paid for by existing customers and thus will reduce the amount to be collected in rates. This testimony will continue the transparent process concerning this project and provide a venue for submitting thorough and detailed





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answers to questions like those you posed. AAW eagerly looks forward to the establishment of a full and accurate record in that case which answers all questions posed by interested parties.

The Company is willing and eager to collaboratively seek out a solution. We will have representatives in attendance to answer questions at the 5:00 PM April 14 town hall in Tubac. At this meeting, and in the context of our drafting our request to ADEQ including guidance on point of use technology, AAW is interested in hearing from Tubac residents whether they are genuinely willing to accept point of use technology and all its associated inconveniences (e.g., access for Company employees inside each resident's home) and risks (e.g., reverse osmosis removes chlorine which can result in bacteria in the in-house storage tank) as a serious alternative to the Company's existing plan.

Thank you for your assistance and attention to this matter.

Sincerely.

Tom Broderick

Mr a. Burch

Manager, Government & Regulatory Affairs

Cc:

Chairman Jeff Hatch-Miller
Commissioner William Mundell
Commissioner Marc Spitzer
Commissioner Mike Gleason
Brian McNeil
Steve Owens, Director, ADEQ
Jeff Stuck, ADEQ
Bill Meek, AUIA
Stephen Ahearn, RUCO
James Patterson, Tubac resident





ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.adeq.state.az.us

April 4, 2005

Ms. Nina Miller Environmental Compliance Manager Arizona American Water Company 19820 N. 7th Street, Suite 201 Phoenix, AZ. 85024

Re: Exemption request for Arizona American Water Company-Tubac, PWS ID 12-001

Dear Ms. Miller:

I have received and reviewed your exemption request from the January 23, 2006 effective date for the revised arsenic maximum contaminant level (MCL) of 10 parts per billion. When reviewing exemption requests the Department is required to determine that the water system:

- Is unable to comply with a MCL because of compelling factors which may include economic factors
- The exemption will not result in an unreasonable risk to human health
- The water system is unable to make management or restructuring changes that will result in compliance with the MCL
- The water system is taking all practical steps to meet the MCL and cannot complete capital improvements before the effective date of the MCL
- The water system needs financial assistance for necessary capital improvements and has entered into an agreement to obtain the financial assistance
- The water system has entered into an enforceable agreement to become part of a regional water system

In your letter the basis for this request is EPA instruction to Primacy agencies directing them to grant exemptions in cases where compliance would create undue burdens, that the currently planned technology would result in estimated monthly consumer rate increase of up to \$60, and the prospect that a cheaper technology may become available in the future. While the Department views these issues as important they do not in themselves provide the necessary information upon which an exemption decision can be made.

If you wish to pursue an exemption it will be necessary for you to provide the above listed information in your request as well as providing the Department with a compliance schedule that

Northern Regional Office 1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004 (928) 779-0313 Southern Regional Office 400 West Congress Street • Suite 433 • Tucson, AZ 85701 (520) 628-6733 Ms. Nina Miller, Environmental Compliance Manager April 4, 2005

details steps and associated time frames that will result in compliance with the arsenic MCL by January 23, 2007.

I can assure you ADEQ takes its mission seriously and as such non-compliance with the arsenic regulation, or any other drinking water regulation, will be appropriately addressed by the Department. I would encourage you to consult the many technical assistance tools that have been developed by ADEQ and EPA which are designed to aid small systems in identifying the cheapest feasible method to comply with the arsenic regulation.

Please feel free to contact me if you have any questions regarding this matter. I can be reached directly at (602) 771-4617 or toll free in Arizona at 1-800-234-5677 extension 4617.

Sincerely,

Jeffrey W. Stuck

Safe Drinking Water Section Manager

yw. Stub

Cc: Karen Smith, WQD John Calkins, WQD



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

Stephen A. Owens
Director

1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.adeq.state.az.us

March 22, 2005

Mr. James S. Patterson Box 1983 Tubac, AZ 85646

Re:

New Arsenic Standard for Drinking Water Systems

Dear Mr. Patterson:

Thank you for your letter concerning the newly revised arsenic standard for drinking water and the associated burden compliance will place on the Tubac community. ADEQ has been extremely active in this regulation considering the very large impact it places on Arizona public water systems. Our goal from the beginning of our involvement has been to ensure the standard was set appropriately, based on sound science, and that the economic burden of compliance was minimized to the maximum extent possible.

This drinking water regulation represents a very difficult undertaking; the cost of compliance is high but also the health risks associated with arsenic in drinking water are serious and real. In our effort to balance these two central issues we developed the Arizona Arsenic Master Plan (Master Plan). The Master Plan represents a great deal of technical expertise that arms water systems with expert analysis coupled with reliable cost estimates. The Master Plan information is compiled in a manner that directs water systems to the cheapest feasible solution to arsenic non-compliance, an outcome we all agree is vitally important.

In your letter you mention that you are not opposed to the new standard and that you understand the health risks associated with arsenic in drinking water. You request a two to three year extension in an effort to allow new arsenic removal technologies to be developed that will lower the cost of compliance. You also specifically cite work being conducted at the Lawrence Berkeley National Laboratory (LBNL) that claims the cost of compliance could be reduced to \$1 per household per year. The work at LBNL is interesting and is certainly worthy of continuation. However, I must admit I was unable to locate information that would substantiate the cost figures posted on the website. Nevertheless, the prospect that future technological developments may result in lower compliance costs is very real. In fact, as a general statement, arsenic removal technologies will advance as do technologies for various industrial applications do over time. The question is will a delay in compliance for two or three years result in a meaningful cost reduction for Tubac, a question I don't believe can be definitively answered.

Northern Regional Office 1515 East Cedar Avenue • Suite F • Flagstaff, AZ 86004 Southern Regional Office 400 West Congress Street ◆Suite 433 ◆Tucson, AZ 85701 Point of Use (POU) compliance strategies carry promise for small water systems in Arizona. You are correct in stating a very small percentage of the overall water use is used for drinking and cooking. When evaluating the appropriateness of POU water systems must determine when the number of units employed and the maintenance and administrative costs associated with such a compliance strategy become financially unfavorable. We have estimated this number to be around 300 service connections, but of course the final decision will rest with the water system.

Unfortunately the use of bottled water as a permanent compliance solution is prohibited by the Environmental Protection Agency (EPA) and therefore cannot be approved by this Agency. Additionally, the EPA has given no indication they intend to change their view on the use of bottled water as a permanent compliance strategy.

I have received the request from American Water Company (AWC) for an exemption from the arsenic compliance date for their Tubac water system. After evaluating the request I have found it does not contain necessary information upon which a decision can be made. I have notified AWC of this issue and asked that they provide additional information that will allow this Agency to reach a decision under the regulatory requirements. Upon receipt of the additional information my staff will carefully evaluate the request and make a decision that meets the regulatory requirements of the Safe Drinking Water Act, and to the extent possible, meets the needs and desire of AWC and the Tubac Customers.

I hope you find this information useful and would encourage you to contact Jeff Stuck at (602) 771-4617 should you have any additional questions.

Sincerely,

Stephen A. Owens Director

Cc: Karen

Karen Smith Jeff Stuck COMMISSIONERS

JEFF HATCH-MILLER - Chairman
WILLIAM A. MUNDELL
MARC SPITZER
MIKE GLEASON
KRISTIN K. MAYES



BRIAN C. McNEIL
Executive Secretary

Direct Line: (602) 542-4143 Fax: (602) 542-0765 E-mail: kmayes@cc.state.az.us

ARIZONA CORPORATION COMMISSION

April 11, 2005

Mr. Tom Broderick Arizona-American Water Co. 19820 North Seventh Street Phoenix, AZ 85024 WS-01303A-02-0867 WS-01303A-02-0868 WS-01303A-02-0869 WS-01303A-02-0870 W-01303A-02-0908 W-01303A-01-0983

Dear Mr. Broderick:

As you know, the deadline for compliance with the new federal arsenic standard of 10 ppb is fast approaching. In some communities, including Tubac, achieving this more stringent standard could cost millions in new physical plant. For the approximately 500 residents of Tubac, this could mean an additional \$75 per customer per month, according to unofficial projections offered by your Company.

Given these dramatic costs and the hardship it would inevitably pose for Tubac residents, it is critical that all options for meeting the standard be explored before the final and irreversible decision is made to implement the most expensive remedies. Your letter to the Arizona Department of Environmental Quality asking for a waiver of the January 2006 deadline, at the behest of the people of Tubac, demonstrates some sensitivity to the potential economic train wreck ahead.

Specifically, I would like to know whether Arizona-American has investigated the feasibility of new emerging technologies, including the coal ash technology that is being tested by Berkeley Laboratories in California. Recently, the California Energy Commission awarded a \$250,000 grant to Berkeley Labs to determine whether a coal ash purification method being developed there could be deployed by California municipal water providers. Early indicators are that the technology, if brought to the market successfully, could be implemented at a fraction of the cost of current arsenic remediation systems. Have you had any discussions with the Lab about licensing the technology and do you know of any other private water company that is contemplating this technology?

Additionally, as you know, one of the most cost effective methods of meeting the lower atsenic standards is the blending of water from several well sources when one of those wells is below the standard. Please inform the Commission of whether the Company has thoroughly explored this non-treatment option, in particular whether the company could maximize production from all of its wells to blend and meet the standard.

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Mr. Tom Broderick April 13, 2005 Page 2

Moreover, has the Company conducted depth-specific testing on its wells to explore whether they exceed the standard at all depths? And has the Company conducted aerial surveys of the Tubac aquifer in an effort to determine whether another well could be drilled in the area to facilitate blending?

It has also come to my attention that Arizona-American has indicated to Tubac residents that a portion of the projected \$75 per month projected increase is tied to the company's plans to move its business office and improve fire flow in the area. Is this accurate?

Finally, as you may know, the Commission recently approved Decision No. 67669, Valley Utilities Water Company, in which we implemented an unprecedented water arsenic impact fee for new home construction to help defray the costs associated with meeting the new arsenic standard. Please tell me if Arizona-American has examined the feasibility of a similar fee for new development to help ameliorate the potential costs of arsenic remediation in Tubac.

To further address this issue, I will be holding a town hall meeting, open to the public, on April 14, to discuss this issue with the residents of Tubac. This meeting will take place at the North County Building, and run from 5:00 to 7:00 PM.

The residents of Tubac are understandably concerned about the impending federal deadline and have demonstrated a willingness to collaboratively seek out a solution to the dilemma we face. We owe it to them to ask and answer every question in the months leading up to January 2006.

Thank you for your attention to this very serious matter.

Sincerely,

Kris Mayes
Commissioner

Cc: Chairman Jeff Hatch-Miller Commissioner William Mundell Commissioner Marc Spitzer Commissioner Mike Gleason Brian McNeil Steve Owens, Director, ADEQ Bill Meek, AUIA Stephen Aheam, RUCO